

SEQUENCE LISTING

<110> Nippon Meat Packers, Inc.

<120> TRANSGENIC MAMMALS

<130> Q57531

<140> 09/462,740

<141> 2000-04-05

<150> JP 9-205235

<151> 1997-07-14

<160> 3

<170> PatentIn version 3.1

<210> 1

<211> 5418

<212> DNA

<213> Sus scrofa

<220>

<221> misc_feature

<223> gamma-FIXII porcine genome phage library

<220>

<221> misc_feature

<222> (395)..(395)

<223> "n" may be a, c, g or t

<220>

<221> misc_feature

<222> (425)..(425)

<223> "n" may be a, c, g or t

<220>

<221> misc_feature

<222> (766)..(766)

<223> "n" may be a, c, g or t

<220>

<221> misc_feature

<222> (1547)..(1547)

<223> "n" may be a, c, g or t

<220>

<221> misc_feature

<222> (1561)..(1561)



RECEIVED
OCT 02 2001
TECH CENTER 1600/2900

<223> "n' may be a, c, g or t

<220>

<221> misc_feature

<222> (2083)..(2085)

<223> "n' may be a, c, g or t

<220>

<221> misc_feature

<222> (2098)..(2098)

<223> "n' may be a, c, g or t

<220>

<221> misc_feature

<222> (2102)..(2102)

<223> "n' may be a, c, g or t

<220>

<221> misc_feature

<222> (2113)..(2113)

<223> "n' may be a, c, g or t

<220>

<221> misc_feature

<222> (2120)..(2120)

<223> "n' may be a, c, g or t

<220>

<221> misc_feature

<222> (2127)..(2127)

<223> "n' may be a, c, g or t

<220>

<221> misc_feature

<222> (2168)..(2168)

<223> "n' may be a, c, g or t

<220>

<221> misc_feature

<222> (2184)..(2184)

<223> "n' may be a, c, g or t

<220>

<221> misc_feature

<222> (2209)..(2209)

<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (2215)..(2216)
<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (2267)..(2267)
<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (2272)..(2272)
<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (2277)..(2277)
<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (2302)..(2302)
<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (2323)..(2323)
<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (2355)..(2355)
<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (2408)..(2408)
<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (2465)..(2465)
<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (2564)..(2564)
<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (2570)..(2570)
<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (2579)..(2579)
<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (2644)..(2644)
<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (2673)..(2673)
<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (2675)..(2675)
<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (3270)..(3270)
<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (3378)..(3378)
<223> "n' may be a, c, g or t

<220>
<221> misc_feature
<222> (3428)..(3428)
<223> "n' may be a, c, g or t

<220>
 <221> misc_feature
 <222> (3442)..(3442)
 <223> "n' may be a, c, g or t

<220>
 <221> misc_feature
 <222> (3461)..(3461)
 <223> "n' may be a, c, g or t

<220>
 <221> misc_feature
 <222> (3464)..(3464)
 <223> "n' may be a, c, g or t

<220>
 <221> misc_feature
 <222> (3470)..(3470)
 <223> "n' may be a, c, g or t

<220>
 <221> misc_feature
 <222> (3480)..(3480)
 <223> "n' may be a, c, g or t

<400> 1
 gaattctgcg tacacggggc cccggtggct ttacatcatc gctacagcga catgggatcc 60
 gagccgtgtc tacaacctac acaacaacgc cagatcctta acccaatgca tgaggacagg 120
 gctcaaacct gcggcctcat agatgctagt cagattcggt tctgctgagc cacaatggga 180
 actcctaatt ctagatcgat ctagaattag gagttcccat tgtggctcag cagaaacgaa 240
 tctgactagc atctatgagg ccgcagtttg agccctgtcc tcatgcattg ggttaaggat 300
 ctggcgttgt tgtgtagggt gtagacacgg ctcgatccc atgtcgctgt agcgatgatg 360
 taaagccacc ggggccccgt gctacgcaga attcntgcag cccgggggat ccactagttc 420
 tagcnagaga gttgaaaatt taaagaacat ttctccccta atctcccaa atatgggcaa 480
 aggacaggta cccgtggcac tggaaaaata caggcaagca acccatgagt acatgaaaag 540
 atgctccagg gttcggccta atggaagcct gaacaatgcc tatcacatcg tgggtttctg 600
 aagaagtaac ttaaagaaac tagaaattaa atggctttct tagaatgaaa attctctatc 660
 acaaggaaaa atgttgtatg ttgtttttcc cataatggag gtcagtgggc gctatgatta 720

acaaatatct gatgcctgtg actttttaat tgcaagaaat ctgtgnagtt tttttattat	780
ctatgggaaa tattgcatat attaatgata tcacctaact tgtattattg agcaattctg	840
tccacatctg gcctttcatc tttcatctaa aaagcagggg ctggaccaac tgaccttcag	900
tgccattctt actgctaaca ttctaatttt gtttttattg cctttttgta caaaagtgtg	960
agagaagtca ttttaagtct gtgacattaa atgtaatttt ctgtctccag cattataata	1020
agaatcaaag atttaatcta atacaccgat ggaatattgt ttataacgta tttactgttt	1080
caagccttca aaaccaagag aaaacaaaat gagtacctgt tccttctgag aaatgccctt	1140
cttctgttc agaatccctg tgtataacag gaatgctctc gagttaacag ccaagtaaga	1200
ggcccatcgg ctggcaggtg cccacctagc taggtgcaag cagaggtggc agtgctccca	1260
ggaccaacag cagaaacatg gcttaactat cctgtgttta gcagttctct tacgggtttt	1320
cacaacacct aaaaagcgcc ctgatggggg aaagcctctg ccttcatgct gctgccccgt	1380
ctctgaaaag caggacgtaa atatacaatt taggaggtaa gagggacatc tgccattgtt	1440
ttctttaaca cagtcagcct ctgtttaatg aatcccagcc acctccctcc acctaccatc	1500
attcctaagg tttgcagagg agctgccata gagctcaaaa cacggwntac agacaagcat	1560
nttctccatc cctctcatc ttctcacagg ccgcttgaca acatctctag gagggggtgg	1620
aggcgccacc agtgtttgag cccctcgttc acgcaaagcc ttgactctgg agttctagtc	1680
ctcgcgggac cttaggaagt tcacggtaa tactccgccc ttgggctcag aactaagag	1740
gatctccggg taaagagata gacagtagct ccatgcctga tttaggaaaa ctgtccgtac	1800
agacagttgt aattcattcc tttcagagac aaatcctgct ctcttcctag ttcctgaagt	1860
cattaaaatc aaaagctctc agaaacgtcc cagcatttgc taagtccacg ctgggggag	1920
atgggcagag ccgtgttcag cgcgtttgac agcaacaccc acttatttca ttyagtatcc	1980
ataggcatat atcatgcacc tggatataggc ctctctctca gcactggaga tacagcaaga	2040
aaacgctatt cctgccccat ggagcttgw maraaaaata gannnaaaaa ccctttanaa	2100
anggaagctr ccngmtgggn cmaagtnaaa attaagtaaa aagaaaawccg tgarraaacc	2160
cttcagtnat attaagaaag aaantagctt gatgaaaccc caggtgtana aattnnact	2220
aaaacaatgs tccaattaa aacccccmaa ttcattggaat ttactcnagt ancctgnaac	2280
taggraaacc aaattctagc cnatagtttc tcccttctaa atnttctcat gagaaaacaa	2340
yttatttcca aaganatttt ccatgatggg gaaagttttt ttcaactttg ctcaggtata	2400

aactgaanat	acagcattaa	agtaaagata	gttgcagaga	ccaccaaata	gatacccggt	2460
ttcanaaaaa	gtgccaacat	ggagccagag	aacatttccg	ttacatcacg	cttttacggc	2520
tttgaaaatt	aacagagatg	ataatcccc	mccttgggtt	tccnactccn	tccctcctna	2580
attttacctc	ctttaattgt	catcatgtct	ggagattata	atccaagata	ctaagatggt	2640
tatntcatac	atcgctcca	cacagtgtgt	ctnanaagct	cttgcaagaa	tccaaacatt	2700
gtgctgggtc	gggtagaaaa	ggaaattcca	tggtttggtg	aaccagga	ctcttcagta	2760
catctccgag	gtaaaactgt	ttaaatacaa	ttaaagttct	acagttaaag	ggtaccctcc	2820
tccactgttg	gtgggaatgt	aaactggtag	aatcactatg	aaaaacagga	tggaggtact	2880
tcagaaaatg	aagtatagaa	ctaccacagg	atccagcact	ctcactcctg	ggcacctatc	2940
aggacaaaaa	attcgctgca	aaagatgcat	gcacccatag	ctatgttcac	tgcagcagca	3000
ttcacaatag	ccaagacatg	gaaacgacct	aaatgtccat	caacagctga	atgcattaag	3060
aagacgtggt	atatacacac	aatggaatac	tactcaagtc	atgaaaaaga	acaaaagaat	3120
gccatttgca	gcaacatggc	atggctggaa	ctagagactc	atgctaaatg	aagtcagtga	3180
gaaagagaaa	gacaaatacc	acatgatatc	acttatactt	ggaatcta	atacgacaca	3240
catgaaactt	tccacagaaa	agaaaacctn	catggacttt	ggagaacaga	cttgtgggtt	3300
cscgaagggg	ggargggggg	aagaccgtgg	gaggactggg	gagctttggg	gttaatagat	3360
gcaaaactat	tgcctttnga	atggataagc	caatgggatc	ctgctgtacc	agaaccrggg	3420
aactatanct	agtcacttgc	kntagaacat	gatggaggat	natntgagan	aaagaatatn	3480
tgtgtgtgk	agagagagag	agactggctc	cactttgctg	tatagtagaa	aactgacaga	3540
acaccgtaaa	ccattaaata	aaaatccagt	aaaaatttaa	aaataaaaa	acacattggt	3600
tccaatgtgt	ttaaaagcaa	taaagttcta	taattgcagc	agatgcatct	gaggtttaca	3660
cggagagctt	ccattcctta	ccatcctctc	attccttaac	tctaattgtg	tacaggttct	3720
attctcacca	ttctatgaac	aaaagagcag	ctgatttaca	ggttggtttt	ttcaaaaaaa	3780
aaaatttctt	taccaggatc	ccaaatgtaa	caaaggggtc	atatagaaaa	cttaaaaagc	3840
acagccaaag	agaaatatac	ataagccttt	caactattaa	ttttgattaa	tatccaacga	3900
atctcttttt	aagtgtatca	atatattatt	cattttaata	aaagaaattg	caagaggcac	3960
ttgctttttc	tgcttacaaa	tacggtttct	caaatcgatt	ttttttatat	actgtttgca	4020

tagaatttca atccataaag ctacctattg aaaattcctt atattttctgc taaacactta	4080
agggcttata ttttctccaa atttatacat ccttgctcac agttctgacg atgtctttgg	4140
gataaactct aaatggaact agaggtttaa aagttatgtc catttaaaac ttttaacaca	4200
aaaaaaggta agttaaaaag taaaagtttg gggaggctgc tggtcgcccc cccaacattg	4260
gctgacattt ttattctttg acaacaaata ggaagaaaat gtcaatgtct ttttttactg	4320
cttaatactg gtcattgttac ttttctttcc ttttgctaata catacaggct tactcacaac	4380
tctacaaaaa aatcttactc attcctaatag ttccttcatt gagagattgg tttgccggaa	4440
acgttctcac tctcaccaag tccaacagt cccaactcta acgacggtcg ctgcttccag	4500
aaatacggca cttaaggcac cctcgtcctt acctttttca tgcattgtga tttcattttc	4560
aataaaacat tgagttgttc caaggccaga ccatagagtt gagccccaac atgctagtgg	4620
cccagtgtga tgtaataatt taccttccca ggggtcctct ccgggggggt acaggcgaga	4680
ctaagtgact ttaagctgtt gggagaacaa tggccaaacc tttcgtgatt ttgaaatcta	4740
tcaggccacg agacacttcg gtagcggacg ctcaaccctg ggaatcccaa ctattgtccc	4800
aaattttgcc tgactcgtgc caaagattga gccaggggccc ggggtgtccag gcagtctgca	4860
gtgccccagt ccccaccaga gccctgaagg gtgtcggggc ccacgaaacc gctgccccgg	4920
ctctagggtt tctgttttca ggtcgtgctg ctttattctc taattcagcg tccccgaaag	4980
agaccatgag gacccgcca gtgtccttta caccttcccg tgtcgggtgg cgacagctgt	5040
ttacgaagaa gaggtcacca cccttccccg caagccgcag cggtagttc cgcagaagga	5100
ggagccaggg cgtcggggcg cagctgggag agaggcccgg cagcggggcg cgcggagcag	5160
caagggcgct cctctctcgg ccggagcccc gccccgcccc gccccacgg ccccgcttg	5220
cggcccgccc attggctccg ccggggcctg gagtcactcc ctagagccac ttccgcccag	5280
ggcggggccc agggcacgcc cactggcctg accgcgcggg aggtctccgg agaccgtgga	5340
ttcttactcc tgctgtcgga actcgaagag gtctccgcta ggctggtgtc gggttacctg	5400
ctcatcttcc cgaaaatg	5418

<210> 2

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR sense primer

<400> 2

ggccttcccc cagatgtacc taatgcc

27

<210> 3

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR anti-sense primer

<400> 3

tccataatgg tcacgttccc cttg

24